Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

SHELLFISH

227 *Tridacna* shellfish (*payua*) is obtained from the lagoon corals with the aid of a cutting implement (*kalo payua* or *manuia payua*) of *ngangie* wood about 12 inches long. One end is a double-edged, pointed, sharpened blade (*kalo*). The other end (*kalohalo*) is square and has a cutting edge on one side only. Between the two blades is a smooth section of wood used as a handle. Today a piece of iron with wood lashed along the median line is [283] preferred to the wooden implement. Both men and women procure *payua*. Groups of girls or mixed parties of young men and girls go shellfishing together. An outrigger is often taken out from shore to act as a float. 226

By one method the fisherman dives for *payua* in deep water. He cuts the membranes on the two open half-shells with a twist of the *kalo* blade of the knife to prevent the shell from closing. Then with the *kalohalo* blade he makes a circular sweep around both shells and severs the flesh from the shell. He brings the flesh to the surface, leaving the shell below the water. The flesh is placed in a basket tied to the outrigger float. Considerable skill is required to remove *Tridacna* meat with the implement in the time the fisherman can remain submerged.

Another way to procure *payua* is to swim or canoe out to the coral heads of the lagoon and pry (*nakenake*) the shells from the coral with a digging stick. Today an iron crowbar is preferred for this work. The shells are loaded into the canoe and brought ashore, where the flesh is cut out with a *kalohalo* or knife. On coral heads in the lagoon close to Motu Ko are large piles of *Tridacna* shells (*ngaiipayua*) which testify to the value placed on *payua* meat in past times.

226 321 The flesh of the pearl shell (*uwa ni*) is not eaten. The shells are grasped in the hand and twisted so as to break off the tentacles anchoring the shell to the coral. Pearls were of no value when found inside the shell and were commonly thrown away.

The general name for clams is *pipi*. Various varieties are *pipi yeyenga*, *pipi kula*, *pipi tonga*, and *ngu*. They are not eaten but the shells were formerly valued for cutting implements, coconut graters (for which the clam *ngu* was used), taio scrapers, and occasionally for lancets in surgery.

[413] Periwinkles (*alili*) come over the reef in large quantities at the full of 126 the moon and are especially numerous during the time of the morning rising 262 of the Pleiades. They are collected on the reef by hand by children and adults and form an occasional article of diet, roasted in the shells. The flesh is pulled from the shell with the fingers or a pointed stick. Periwinkles are considered hard to eat and not very satisfying but pleasant enough for a change.

REEF CREATURES

136 Reef creatures found on Pukapuka but not eaten, though sometimes caught on other Polynesian islands for food, are sea porcupines, of which the Pukapukan names four: *uetulu* (a black-spined sea porcupine); *rusa* (a

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ment end, and passes at 6, on near side, diagonally up to shoulder (3) where it grips poll of adz, passes across far side of heel, and is brought to near side over notch 1, across to toe angle; it makes a turn under toe angle, passes to notch 1, on far side, and then across heel on near side, gripping first diagonal turn (7) of sennit from toe to heel. *b*, continuation of lashing: free end (7) passes across shoulder (3) and across heel to notch 1, where it is brought across to near side and down (8) to near side toe angle; from toe angle it passes to far side of toe and makes a transverse turn around toe, coming back on near side and passing under toe angle (9) to make diagonal turn on far side up to shoulder; brought around shoulder to near side and passes across heel (10) to notch 1, where it passes down far side of heel to make further turns, as described, until four complete turns are made of which, for clearness, only two are shown in *b*. *c*, lashing of point of heel: fourth completed turn brings free end of sennit into position at 11, to make two turns around point of heel; sennit passes diagonally across near side of foot from toe angle to heel, crosses to far side of heel at notch 2, passes across heel and is brought to near side of heel (12) and diagonally down on near side to toe angle; sennit crosses under toe again (13), runs diagonally up to heel on far side and is brought across notch 2, to near side of heel, then across heel and diagonally down on far side to toe angle (14); sennit then ready to make two more turns, repeating diagonal movements between toe angle and heel; four diagonal turns in all, of which only two are shown in *c*. *d*, continuation of lashing: last turn of diagonal lashing brings sennit into position (15) for further turns; sennit passes on near side from toe angle to notch 1, where it lies on top of turns made as in *b*; sennit crosses to far side of heel, then crosses heel to shoulder (3) and goes around to near side of heel and across heel to notch 1 where it passes to far side of heel and down to toe angle (17), forming lower loop (16) of this phase of lashing. *e*, sennit (17) comes around under toe angle and goes diagonally across to heel; turn continued around heel to far side to make upper loop (18), then diagonally down on far side to toe angle; this brings sennit (19) into position to repeat turns as in *d* and *e*; altogether six turns are made, lower loop alternating with upper loop, and free finishing end of sennit brought up on near side of toe angle and buried underneath last two turns at heel angle. *f*, completed lashing: 20, first four turns made around toe, binding lower part of adz to toe of haft; 21, four diagonal turns around point of heel and notch 2; 22, final six turns, alternating lower with upper loop; 23, point where end is buried to complete lashing.

Drill.

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The pump drill (tou) was formerly used to drill holes in wood and shell. It was of a common Polynesian design (fig. 22).

To drill a small hole or to drill fragile articles, a light balance was required; for this purpose one half of a dry coconut shell was put on the shaft by pushing the shaft through the soft eye of the shell, the eye part of the shell pointing downward, the open half of the shell pointing upward. To drill a large hole in hard material, a heavy balancer was used, the wooden balance on a drill being reenforced if necessary with extra weights of wood.

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The point of the drill was of shell or iron. Informants were at pains to point out that the Pukapukans were aware of iron long before white contact. They procured nails from pieces of boat wreckage which from time immemorial have drifted onto the outer beaches. They burned the wreckage and combed over the ashes for nails hammered into the wood.

To drill in slate stone. The worker started a hole by holding the shaft of the drill between the palms of the hands and rotating it. When he had made the slightest depression to hold the point, he worked the drill with the pump handle.

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A craftsman took great care of his drill. He rubbed the shaft, crossbar and balance smooth with coral, smoked the wood over the cooking fire and oiled it afterward with coconut oil. The fortunate possessor of a drill with an iron guard point guarded his implement jealously because as a time saver it was of the greatest value to him.

Awl

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The shell awi (*yuki voka*), a shell *Terebra cranulata*, was used for making holes in a canoe hull or washstrake where the drill could not be used, or for enlarging holes made by the drill. (See p. 173.) The use of coral mallets for hammering caulking wedges is also described in that context.

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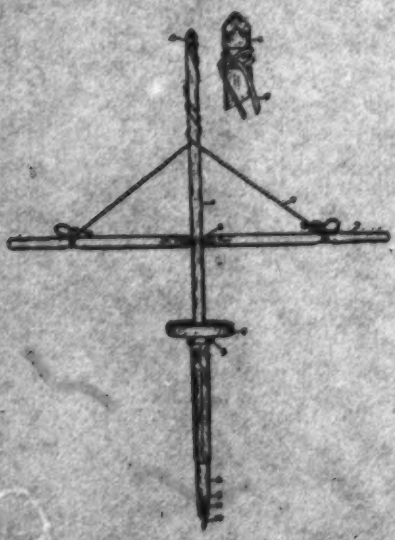

Figure 22.—Pump drill, uvea (CI:124): 1, shaft (*lakau tu*) of *wutau* wood 2 feet 6 inches long, round in cross section and ¾ inch in diameter above balance, square-sided below with sides ⅝ inch wide; 2, distal end of shaft is round, ½ inch in diameter, narrowing to distal point (3) ⅜ inch in diameter; 4, head (*ulu uvea*) of shaft blunt and notched to receive pump cord (*uka uvea*); 5, balance (*potaka*), 4 inches in diameter and ⅛ inch thick, cut from same block of wood as shaft; 6, secondary balance 1½ inches square, ⅛ inch thick; 7, crossbar (*lakau uvea*) of *vaivaiora* wood, 1 foot 9 inches long, has wide groove (8) to fit against shaft; each end also grooved to receive coils of pump cord; 9, pump cord of two-ply twisted sennit, fastened with clove hitch to head of shaft and to each end of crossbar; 10, point (*mata*) section of iron forced into end of shaft and lashed tight with 11 transverse turns of three-ply sennit braid; 12, [illegible] commencement and finishing coils.